APPENDIX A TO SUBPART B OF PART 53—OPTIONAL FORMS FOR REPORTING TEST RESULTS

**NOISE TEST DATA**

Applicant _____ Date _____

Analyzer _____ Pollutant _____

Range _____ Test No. _____

| READING NUMBER (i) | TIME | 0% of URL | | 80% of URL | |
|---|---|---|---|---|---|
| | | DM READING | $r_i$, ppm | DM READING | $r_i$, ppm |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
| 25 | | | | | |
| STD. DEVIATION | | $S_0$ = | | $S_{80}$ = | |

Figure B-2. Form for noise test data (see §53.23(b)).

**LDL and INTERFERENCE TEST DATA**

Applicant _____ Date _____

Analyzer _____ Pollutant _____

| TEST PARAMETER | | READING or CALCULATION | TEST NUMBER | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| LOWER DETECTABLE LIMIT | | $B_Z$ | | | | | | | | | | | | | | | |
| | | $B_L$ | | | | | | | | | | | | | | | |
| | | $LDL = B_L - B_Z$ | | | | | | | | | | | | | | | |
| INTER-FERENCE EQUIV-ALENT | 1 | $R_1$ | | | | | | | | | | | | | | | |
| | | $R_{I1}$ | | | | | | | | | | | | | | | |
| | | $IE = R_{I1} - R_1$ | | | | | | | | | | | | | | | |
| | 2 | $R_2$ | | | | | | | | | | | | | | | |
| | | $R_{I2}$ | | | | | | | | | | | | | | | |
| | | $IE = R_{I2} - R_2$ | | | | | | | | | | | | | | | |
| | 3* | $R_3$ | | | | | | | | | | | | | | | |
| | | $R_{I3}$ | | | | | | | | | | | | | | | |
| | | $IE = R_{I3} - R_3$ | | | | | | | | | | | | | | | |
| | 4* | $R_4$ | | | | | | | | | | | | | | | |
| | | $R_{I4}$ | | | | | | | | | | | | | | | |
| | | $IE = R_{I4} - R_4$ | | | | | | | | | | | | | | | |
| | 5* | $R_5$ | | | | | | | | | | | | | | | |
| | | $R_{I5}$ | | | | | | | | | | | | | | | |
| | | $IE = R_{I5} - R_5$ | | | | | | | | | | | | | | | |
| | TOTAL* | $\sum_{i=1}^{n} \lvert IE_i \rvert$ | | | | | | | | | | | | | | | |

*If required.

Figure B-3. Form for test data and calculations for lower detectable limit (LDL) and interference equivalent (IE) (see § 53.23(c) and (d)).

**DRIFT AND PRECISION TEST DATA**

Applicant _____ Date _____

Analyzer _____ Pollutant _____

| | ANALYZER READING, ppm | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEST DAY | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| DATE | | | | | | | | | | | | | | | | |
| $P_1$ | | | | | | | | | | | | | | | | |
| $P_2$ | | | | | | | | | | | | | | | | |
| $P_3$ | | | | | | | | | | | | | | | | |
| $P_4$ | | | | | | | | | | | | | | | | |
| $P_5$ | | | | | | | | | | | | | | | | |
| $P_6$ | | | | | | | | | | | | | | | | |
| $P_7$ | | | | | | | | | | | | | | | | |
| $P_8$ | | | | | | | | | | | | | | | | |
| $P_9$ | | | | | | | | | | | | | | | | |
| $P_{10}$ | | | | | | | | | | | | | | | | |
| $P_{11}$ | | | | | | | | | | | | | | | | |
| $P_{12}$ | | | | | | | | | | | | | | | | |
| $S_n = \frac{1}{6}\sum_{i=7}^{12} P_i$ | | | | | | | | | | | | | | | | |
| $L_1$ | | | | | | | | | | | | | | | | |
| $L_2$ | | | | | | | | | | | | | | | | |
| $Z'_n$ | | | | | | | | | | | | | | | | |
| $S'_n$ | | | | | | | | | | | | | | | | |
| $C_{max}$ | | | | | | | | | | | | | | | | |
| $C_{min}$ | | | | | | | | | | | | | | | | |

Figure B-4. Form for drift and precision test data (see § 53.23(e)).

**CALCULATION OF ZERO DRIFT, SPAN DRIFT, AND PRECISION**

Applicant _____ Date _____

Analyzer _____ Pollutant _____

| TEST PARAMETER | | CALCULATION | TEST DAY (n) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| ZERO DRIFT | 12 HOUR | $12ZD = C_{max} - C_{min}$ | | | | | | | | | | | | | | | |
| | 24 HOUR | $Z = (L_1 + L_2)/2$ | | | | | | | | | | | | | | | |
| | | $24ZD = Z_n - Z_{n-1}$ | | | | | | | | | | | | | | | |
| | | $24ZD = Z'_n - Z'_{n-1}$ | | | | | | | | | | | | | | | |
| SPAN DRIFT | 24 HOUR | $S_n = \frac{1}{6}\sum_{i=7}^{12} P_i$ | | | | | | | | | | | | | | | |
| | | $SD_n = \frac{S_n - S_{n-1}}{S_{n-1}} \times 100\%$ | | | | | | | | | | | | | | | |
| | | $SD_n = \frac{S_n - S'_{n-1}}{S'_{n-1}} \times 100\%$ | | | | | | | | | | | | | | | |
| PREC-ISION | 20% URL ($P_{20}$) | $P_{20}$ = STANDARD DEVIATION of ($P_1 \ldots P_6$) | | | | | | | | | | | | | | | |
| | 80% URL ($P_{80}$) | $P_{80}$ = STANDARD DEVIATION of ($P_7 \ldots P_{12}$) | | | | | | | | | | | | | | | |

Figure B-5. Form for calculating zero drift, span drift, and precision (§ 53.23(e)).

**TEST DATA SUMMARY**

Applicant _____ Analyst _____

Analyzer _____ Pollutant _____

Range _____ Other information _____

Test dates _____

| Performance Parameter | | Table B-1 Spec. | Test Number (first set) 1 | 2 | 3 | 4 | 5 | 6 | 7 | Test Number (second set) 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Number of Failures | Pass or Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Noise**, ppm | 0% URL | | | | | | | | | | | | | | | | | | |
| | 80% URL | | | | | | | | | | | | | | | | | | |
| **LDL** (> 2 x 0% noise) | | | | | | | | | | | | | | | | | | | |
| **Interference Equivlent**, ppm | IE1 | | | | | | | | | | | | | | | | | | |
| | IE2 | | | | | | | | | | | | | | | | | | |
| | IE3 | | | | | | | | | | | | | | | | | | |
| | IE4 | | | | | | | | | | | | | | | | | | |
| | IE5 | | | | | | | | | | | | | | | | | | |
| | IE6 | | | | | | | | | | | | | | | | | | |
| | Total | | | | | | | | | | | | | | | | | | |
| **Zero Drift**, ppm | 12 hr | | | | | | | | | | | | | | | | | | |
| | 24 hr. | | | | | | | | | | | | | | | | | | |
| **Span Drift**, % | 80% URL | | | | | | | | | | | | | | | | | | |
| **Lag Time**, min | | | | | | | | | | | | | | | | | | | |
| **Rise Time**, min | | | | | | | | | | | | | | | | | | | |
| **Fall Time**, min | | | | | | | | | | | | | | | | | | | |
| **Precision**, percent | 20% URL | | | | | | | | | | | | | | | | | | |
| | 80% URL | | | | | | | | | | | | | | | | | | |

Figure B-6. Form for reporting a summary of the test results (see § 53.23).

## Subpart C—Procedures for Determining Comparability Between Candidate Methods and Reference Methods

SOURCE: 71 FR 61278, Oct. 17, 2006, unless otherwise noted.

### § 53.30 General provisions.

(a) *Determination of comparability.* The test procedures prescribed in this subpart shall be used to determine if a candidate method is comparable to a reference method when both methods measure pollutant concentrations in ambient air. Minor deviations in testing requirements and acceptance requirements set forth in this subpart, in connection with any documented extenuating circumstances, may be determined by the Administrator to be acceptable, at the discretion of the Administrator.

(b) *Selection of test sites.* (1) Each test site shall be in an area which can be shown to have at least moderate concentrations of various pollutants. Each site shall be clearly identified and shall be justified as an appropriate test site with suitable supporting evidence such as a description of the surrounding